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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/960,269	09/20/2001	Christine Brauer	170135.401	5382

500 7590 07/06/2005

SEED INTELLECTUAL PROPERTY LAW GROUP PLLC  
701 FIFTH AVE  
SUITE 6300  
SEATTLE, WA 98104-7092

EXAMINER
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MAYES, MELVIN C

ART UNIT	PAPER NUMBER
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1734

DATE MAILED: 07/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/960,269

Applicant(s)

BRAUER, CHRISTINE

Examiner

Melvin Curtis Mayes

Art Unit

1734

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 29,45,47 and 60-62 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 29,45,47 and 60-62 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Allowable Subject Matter***

(1)

The indicated allowability of claims 44 and 45, now Claims 29 and 45, is withdrawn in view of the newly discovered reference(s) to Triboulet et al. Rejections based on the newly cited reference(s) follow.

### ***Claim Rejections - 35 USC § 103***

(2)

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

(3)

Claims 29, 45, 47, 61 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 94/26086 in view of either JP 9-47559 or DE 19700354, further in view of Triboulet et al. 6,127,434 and MacKenzie, Jr. et al. 4,006,283.

WO 94/26086 discloses a method of making pellets for a filter for treating waste water (sewage) comprising: mixing polypropylene or polyethylene with additive such as crosslinked polyolefin material to enhance the melt fracture appearance; extruding the mix through a die; and chopping the extrusion into pellets. A suitable mix would be about 60% polyethylene with about 40% of crosslinked polyethylene and a small amount of polyvinyl chloride (pg. 1-5). WO '086 does not disclose providing the polyethylene and crosslinked polyethylene as plastic material

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wastes with the crosslinked polyethylene providing 0.01-5% or 0.1-0.5% peroxide to the polyethylene waste.

JP 9-47759 teaches that for wastewater treatment, plastic waste of polyethylene and/or polypropylene can be cut into the form of granular powder, pellet, fibrous, or cylinder for use as the adsorbent (abstract and computer translation [0013]-[0020]).

DE 19700354 teaches that plastic recyclable waste can be formed into granular carrier material of any desirable size and any shape for use in wastewater cleaning (Abstract and oral translation).

Triboulet et al. teach that crosslinked polyethylene material from scraps of cable coatings (waste) can be recycled by extruding and granulating the material for re-use in molding or extrusion, either alone or mixed with other polymers. Triboulet et al. teach that polyethylene is crosslinked with peroxide (col. 2, lines 23-65, col. 5, lines 18-20).

MacKenzie, Jr. et al. teach that typical proportions of peroxide used to crosslink polyolefins such as polyethylene include 0.5- 6 parts by weight per 100 parts by weight of the polyolefin (col. 3, lines 1-5).

It would have been obvious to one of ordinary skill in the art to have modified the method of WO '086 for making pellets for a wastewater filter by providing the polyethylene and crosslinked polyethylene as recyclable waste materials, as taught by either JP '759 or DE '354, as material used to make pellets or granular material for wastewater treatment. By providing each of the polyethylene and crosslinked polyethylene as recyclable waste without waste of other types of plastic materials, each of the polyethylene and crosslinked polyethylene are obviously provided as pre-sorted plastic wastes, as claimed.

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It would have been obvious to one of ordinary skill in the art that by providing crosslinked polyethylene as an additive for extruding with the polyethylene, peroxide is added to the polyethylene recyclable waste, as Triboulet et al. teach that crosslinked polyethylene which can re-used for extrusion is crosslinked by peroxide. By providing polyethylene crosslinked by peroxide, peroxide is present in the crosslinked polyethylene and is thus added to the polyethylene waste, as claimed. By providing the crosslinked polyethylene in the form of granules for re-use in extrusion, as taught by Triboulet et al., the peroxide is added to the polyethylene waste in ground form, as claimed in Claim 47.

Further, by providing the mixture of polyethylene waste and crosslinked polyethylene waste with 40% crosslinked polyethylene waste, an amount of peroxide in the ranges of 0.01-5% or 0.1-0.5% by weight is obviously added to the polyethylene waste, as MacKenzie, Jr. et al. teach that typical proportions of peroxide used to crosslink polyethylene include 0.5-6 parts by weight per 100 parts by weight of the polyethylene. By the polyethylene being crosslinked using 0.5-6 wt% peroxide, an amount of peroxide in the crosslinked polyethylene added to the polyethylene waste is within the ranges as claimed in Claim 29 and 45.

### ***Conclusion***

(4)

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Matsuura et al. teach that 0.05-0.5 wt% peroxide is used in preparing polyolefins crosslinked by silane linkage.

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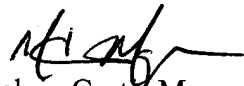
(5)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melvin Curtis Mayes whose telephone number is 571-272-1234.

The examiner can normally be reached on Mon-Fri 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Fiorilla can be reached on 571-272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Melvin Curtis Mayes  
Primary Examiner  
Art Unit 1734

MCM  
June 30, 2005